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## MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY UNITED STATES DEPARTMENT OF AGRICULTURE.

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Number 51

July, 1918.

# BUY UNITED STATES GOVERNMENT WAR-SAVING STAMPS.

#### LIEUTENANT JOHN W. BRADLEY.

It is with deep regret that we are called upon to advise the employees of the Bureau of Entomology of the death of Lieutenant John W. Bradley, Instructor in Flying at Wilbur Wright Field, Dayton, Ohio. Lieutenant Bradley figured in an accident on July 2 and died on July 4.

He was a graduate of the Massachusetts Agricultural College, 1914, and later became attached to the gipsy moth parasite laboratory at Melrose Highlands. He continued in this service until November 1917, when he was enlisted as a Cadet in the Aviation Section of the United States Army. After receiving preliminary training at the Aviation Ground School, Massachusetts Institute of Technology, Boston, and later at Princeton University, he was then assigned to a flying squad and detailed to the Wilbur Wright Field at Dayton. He completed his course and received his commission about one month age, becoming an instructor.

At the time of the Accident Lieutenant Bradley was flying with a Cadet, and descending from a high elevation when about 150 feet altitude the machine suddenly crashed to the ground. Lieutentant Bradley suffered grievous injuries but was conscious for about one hour after the accident, refusing to take an anaesthetic while the broken bones were being set. He failed to rally and died late the evening of July 4, being buried from the residence of his father at Groton, Mass. July 9.

A younger brother of Lieutenant Bradley who also has been employed for some months on gipsy moth work is now a Cadet Aviator at Kelly Field, San Antonio, Texas.

### DR. HOWARD VISITS PACIFIC COAST STATIONS.

The Chief of the Bureau has returned from a field trip to the Pacific Coast, in the course of which he visited the laboratories at Sacramento, San Francisco, Berkeley, Los Catos, Spreckels, Alhambra, Riverside, El Centro, Fresno, and Pasadena Uplands. He also visited the Bureau of Plant Industry Truck Gardens at Chico and also a large silk plantation near Palermo, California. On his return East he saw Mr. Reeves at Ogden and discussed the alfalfa weevil situation.

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### BEE CULTURE E. F. Phillips, Apiculturist in Charge.

On June 18 the Postal Laws and Regulations were amended to permit the shipping of bees by parcel post, under the same conditions as are prescribed for queen boss and their attendant bees when delivery can be made to the addressee within a period of five days.

E. W. Atkins spent July in Iowa doing extension work.

E. G. Baldwin will hereafter work only in Indiana, the work being in cooperation with the State Extension Division.

A series of extension schools for commercial beekeepers is being arranged for November and Becember in California. Messrs. Phillips and Demuth will take part in those.

Geo. H. Vansell of the University of Kentucky has been appointed for the summer for work in South Carelina.

E. C. Davis has been appointed for extension work in Louisiana. D. A. Davis, recently appointed for extension work in Minnesota and Wisconsin, has resigned to enter the army.

E. F. Phillips attended the Farmers' Congress at Stillwater, Okla., and then left for a series of extension meetings in New York State.

Geo. A. Hummer, Sr., has been appointed for extension work in Mississippi. Mr. Hummer was recently in Washington for conference.

A. P. Sturtovant returned recently from Ithaca, M.Y. where he has been engaged in field studies on the transmission of European foulbroad,

A series of memoranda to the bee-culture field men is being prepared and mailed as they are ready. Those consist of suggestions concerning their work, results of investigations and abstracts of material in the office. The reports of some of the field men are also being summarized as a means of suggesting work which will lead to greater efficiency. To supplement material in the Bureau Monthly Letter additional news notes are issued at irregular intervals. The object of these memoranda is to keep the field men in close touch with the office.

### SOUTHERN FIELD CROP INSECT INVESTIGATIONS. W. D. Hunter, Entomologist in Charge.

T. E. Holloway, by permission of the Secretary of Agriculture went to Cuba on July first for the purpose of collecting parasites of the sugar-cane mothborer for introduction into Louisiana. Mr. Holloway's traveling expenses are paid by the Louisiana Sugar Planters Association. Ho is stationed at the Agricultural Experiment Station of the Cuba Cane Sugar Corporation at Mercedes, Frovince of Matanzas. Mr. Holloway reports that work is progressing very favorably and a number of parasites have already been collected and sent to New Orleans for rearing and release on the plantations. He will probably be in Cuba until October.

Dr. O.H. Basseches resigned from the Bureau on July 16 to accept a position in the Bureau of Animal Industry as Veterinary Inspector.

Miss Edith M. Brace, has been appointed a Scientific Assistant and assigned

to duty in Washington, D.C.

Dr. W.V. King has been placed in charge of the mosquito investigations at Mound, La.

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The following men have been appointed as temporary field assistants and assigned to duty at Tallulah, La.: Mesors. D. G. Barney, C. M. Brickell, J. J. Dickson, A. O. Hammett, A. G. Monette, J. W. Patterson, E. B. Smith, G. L. Smith, R. J. Smith, C. G. Wallace, A. L. Williamson, and H. C. Young.

The following men have been appointed as temporary field assistants and assigned to duty at Clarksville, Tenn.: Messra, Charles M. Barrett, Caleb P. Daley, S. F. Grubbs, J. W. Hill, L. M. Judah, J. T. Lewis, Jr., M. L. MacQueen, George

B. Pearson, D. M. Rogers, A. L. Spencer, T. P. Weakley.

Prof. G. H. Lamson, Jr., has been appointed as a collaborator in the investigation of Pediculus with special regard to vacuum fumigation at Buston, Mass.

Mr. S. H. Livingston has been appointed a temporary field assistant and assigned to mosquito work at Mound, La.

FOREST ENTOMOLOGY.
A. D. Hopkins, Forest Entomologist.

Messrs. Craighead and Heinrich have returned from the trips reported in the last News Letter and report hot only very instructive studies but much of them very useful in the present National emergency.

PREMENTANGYSPREAD OF MOTHS.
A. F. Burgess, Entomologist in Charge.

The annual field day and meeting of the Massachusetts Tree Wardens and Foresters Association was held on the 11th and 12th of July, 1918, under the direction of Mr. L. H. Worthley, President of the Association.

The first session was held at the Gipsy Moth Laboratory, Melrose Highlands and members of the Association, together with visitors from New York, Rhode Island, Connecticut, Vermont, Maine and Canada, about 125 in all, inspected the experimental work which is being carried on by the Bureau of Entomology, U. S. Department of Agriculture.

An opportunity was given to see the method of rearing and handling the different parasites of the gipsy moth and the browntail meth which have been introduced from Europe and Japan. Explanations and demonstrations were given in connection with other important work such as the use of an improved material for banding trees and the results of studies which have been made on the feeding habits of the caterpillars and the preference for different kind of tree growth. As most of the members of this Association are actively engaged in gipsy-moth work, an exceptionally good opportunity was offered them to familiarize themselves with the different species of beneficial insects which have been placed in the infested area.

They were also given an opportunity to witness a demonstration of the work of the large motor truck sprayers used by the Bureau of Entomology for spraying infested areas for preventing the spread of the gipsy moth. The sprayer which was used was the latest model which has been built and is capable of generating greater pressure and treating larger areas in a given time than any machine previously devised. It is possible, with this machine, to send a solid stream through 4,000 feet of 1-1/8" hose at an elevation of 800 feet, throwing a stream 100 feet from the ground and thus reaching the tallest trees and the highest hill-tops that occur in the infested area.

After visitings cornfield, heavily infested with the cornborer at West Medford, Mass., where the habits of this insect and the method for its control were explained, by Mr. D. J. Caffrey, a tour was made through the Arnold

Arboretum.

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The party then proceeded along the South Shore where areas badly defoliated by the gipsy moth could be seen easily.

## TRUCK CROP INSECT INVESTIGATIONS F. H. Chittenden, Entomologist in Charge.

A. P. Swallow, who has been engaged for several years in demonstration work on truck crop insects, has been appointed special field agent in extension entomology, for service in Texas, with headquarters at College Station, Tex

M. V. Reed, Assistant State Entomologist of Georgia, has been appointed

a collaborator, for service in sweet-potato weevil investigations.

H. J. Marsh, formerly in charge of a field station at Rocky Ford, Colo., has resigned from active work and has been appointed collaborator, with head-quarters at Chester, N.J.

Miss Mabel S. Stehle, of the Ohio State University, Columbus, Ohio, has

been appointed scientific assistant for service in Washington, D. C.

H. E. Loomis, Assistant entomological inspector, who has been connected with work on the sweet-potato weevil at Macclenny, Fla., has resigned to enter the Navy.

Arthur H. Jarrell, assistant entomological inspector, also has entered

the Navy.

O. K. Courtney has been engaged during the month in extension work in Maryland furnishing instructions to the growers of potatoes and tomatoes for the control of the potato aphis (Macrosiphum solanifolii Ashm.)

Thos. H. Jones has returned from a trip through the Gulf region from Louisiana to Florida where he has been engaged in investigating insects injuri-

ous to truck crops.

John E. Graf is investigating an outbreak of the semi-tropical armyworm (Prodenia eridenia Cram.) on the east coast of Florida. In this work he is co-operating with Prof. Wilmon Newell, Commissioner, State Plant Board. This outbreak is unprecedented and is engaging the services of all of the experts who can be obtained for the purpose.

K. L. Cockerham investigated an outbreak of the grass-worm or fall army-

worm (Laphygma frugiperda S. & A.) in Alabama.

## CEREAL AND FORAGE INSECT INVESTIGATIONS. W. R. Walton, Entomologist in Charge.

Marshal Hertig, of the extensional force working in Minnesota, has resigned from the service to enter the army, effective July 24.

A. H. Sherwood, who was conducting a very successful campaign against grasshoppers in South Dakota, has enlisted in the army and left the service July 10.

H. L. Seamans, who was conducting grasshopper demonstration work in Montana, has enlisted in the army, and will leave the service about the first

of August.

C. K. Fisher, recently engaged in extensional work in Colorado, has re-

signed from the service to enter the army, effective July 23.

J. S. Stanford, formerly attached to the alfalfa-weevil investigations, has been called for military duty, and resigned from the service on July 13.

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Herbert F. Gates, formerly attached to the investigational staff at Tempe, Arizona, has been reappointed, and detailed for work on the European cornstalk borer in eastern Massachusetts.

Herbert J. Pack has been appointed to fill the vacancy caused by the in-

duction of Mr. Standford in the military service.

C. N. Ainslie has just returned to his field station at Sioux City, Iowa, after a tour of demonstration work in the states of North Dakota and South Dakota. He reports that drouth conditions in North Dakota are quite discouraging and that grasshopper injury in both North and South Dakota promises to be quite severe.

Stewart Lockwood, a graduate of Baker University, formarly employed as superintendent on a beet sugar farm in Colorado, has been engaged as Special Field Agent for grasshopper control work in North Dakota. Mr. Lockwood entered upon his new duties on July 15.

A. F. Satterthwait, who recently conducted a very successful control campaign against chinch bugs on the experimental plots of Dry Land Agriculture at Lawton, Okla., is preparing to return to Lawton at an early date, in order to finish the control work.

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